Magnetic Skier

Make your skier glide down a hill and see how magnets work!

Kit contains:

- 2 small craft sticks
- 1 regular craft stick
- 1 piece of magnetic tape
- small magnet
- long piece of paper
- templates for trees and skier

You will need: scissors, tape or glue, something to lean the "hill" against, and coloring supplies (optional).

MORTON GROVE PUBLIC LIBRARY
6140 Lincoln Avenue, Morton Grove, IL 60053
Youth Info Desk: 847-929-5102 | mgpl.org

INSTRUCTIONS

(1) Color and cut out your skier and trees.

(2) Place the two small craft sticks together side by side. Bend the skier's feet and glue or tape them to the two small craft sticks. These are your skis.

(3) Stick the magnetic tape to the bottom of the skis.

(4) Glue or tape the magnet to one end of the regular-sized craft stick.

(5) Turn your long piece of paper into a hill. Lean the top on a raised area, such as a stack of books or blocks. Bend the top of the paper slightly and tape it in place. Tape the bottom of the paper hill to the tabletop or floor.

(6) Tape or glue the trees wherever you'd like on the hill.

(7) Place your skier on top of the hill and hold your magnet stick underneath. Move your magnet stick to move the skier down the hill. Watch out for trees!

WHAT'S GOING ON?

A magnet is an object that has a magnetic force, or the force to attract specific objects to it. Magnetism works due to the movement of tiny electrical charges. All magnets have a magnetic field, which is the area around the magnet. If a magnetic object like a washer enters the magnetic field, it is pulled toward the magnet.

All magnetic objects are made of metal, but not all metals are magnetic. The main metals that are attracted by magnets are iron, cobalt and nickel.

Skiing in the Winter Olympics

The Winter Olympics are taking place in Italy from February 6–22. Athletes from around the world are competing in many sports, several of which involve skiing.

Your project is most like Alpine Skiing, which involves skiing down a mountain, and is divided into Downhill Skiing and Slalom Skiing. Skiers regularly reach speeds of 95 mph! They can go so fast because there is not much *friction* between the snow and their skis. **Friction** is a force that slows down things in motion.

Other Olympic sports that involve skiing are Cross-Country Skiing, Ski Jumping, Biathlon, Ski Mountaineering, and Nordic Combined.

Some Winter Olympic Resources

- www.olympics.com/en/milano-cortina-2026
- *Ticket to the Olympic Winter Games* by Marty Gitlin